

#### Day 4 – Focus Five

Definition of *even*: an integer divisible by 2

Definition of *odd*: an integer one more than an even integer

Definition of *prime*: an integer whose only divisors are itself and 1

Definition of *composite*: an integer that is not prime – has more divisors than itself and 1.

- T or F Two even integers always sum to an even integer.
- T or F Two odd integers always sum to an even integer.
- T or F An even integer added to an odd integer always equals an even integer.
- T or F Two even integers always multiply to an even integer.
- T or F Two odd integers always multiply to an even integer.
- T or F An even integer multiplied by an odd integer always equals an even integer.
- T or F Zero (0) is an even integer.
- T or F An even integer squared (raised to the second power) results in an even integer.
- T or F An odd integer squared (raised to the second power) results in an even integer.
- T or F Two (2) is prime.
- T or F Twenty-nine (29) is prime.
- T or F Fifty-one (51) is prime.
- T or F Three-thousand five hundred and eighteen (3518) is prime.
- T or F A prime number squared (raised to the second power) results in a prime number.
- T or F Each integer, odd or even, can be written as a product of primes.